

REMARKS

Claims 1-4, 6-12, and 14-16 are present in this application. Claims 1, 4, 8, 11 and 14 are independent claims. Claims 5 and 13 have been canceled.

Request for Verification of Claim for Foreign Priority

Applicant notes that the "Office Action Summary" form does not clearly indicate the status of the claim for foreign priority (i.e., boxes 1-3 under box "12"). Applicant requests that in the next action, the Examiner acknowledge the status of claim for foreign priority.

§112, second paragraph, Rejection

Claim 3 has been rejected under 35 U.S.C. § 112, second paragraph, due to the phrase "closer to the center of a usable frequency."

Accordingly, Applicant has replaced the term "closer" with "closest," and has amended the claim to express that channels are selected in order of frequency, beginning with a frequency of a channel that is closest to the center of the useful frequency band (specification at page 33). Applicant requests that the rejection be reconsidered and withdrawn based on the claim amendment.

§101 Rejection

Claims 12 and 13 have been rejected under 35 U.S.C. § 101, as being directed to non-statutory subject matter.

Claim 13 has been incorporated into claim 12 as recommended by the Examiner. Claim 13 has been canceled. Applicant requests that the rejection be reconsidered and withdrawn, based on the claim amendment.

§102(b) Rejection – Hebeler

Claims 1, 2, and 4-16 have been rejected under 35 U.S.C. § 102(b) as being anticipated by U.S. Patent 6,304,756 (Hebeler). Independent claims 1, 4, and 11 have been amended. Claims 8 and 14 have been re-written into independent form. Applicant respectfully traverses this rejection based on the claims as amended.

Brief Summary of the Present Invention

The present invention relates to a transmitter and receiver in a wireless communications system in a state prior to shipment to an end user, or a consumer sales facility. For purposes of efficiency, several inspection processes are typically conducted in the same room (specification at page 29, bottom paragraph). In order to avoid interference from other systems being inspected, each inspection process is set at a different communications channel (specification at page 30, first paragraph). Subsequently, it is desirable to have a large number of communications channels available during an inspection process.

The present invention is preferably based on a spread spectrum method, such as direct-sequence (DSSS) and frequency hopping (FHSS) (specification at page 15, lines 4-8). In the 2.4-GHz band, IEEE 802.11 divides the band into 13 channels, each having a width of 22 MHz. IEEE 802.11 specifies the center frequency of each channel, where channel 1 is centered on 2412 MHz, for example. In the 5 GHz band, there is potential for a much greater number of channels.

After shipment of the wireless communications system, if a user of the system places identical display devices near each other, the user also can change the setting of communications channels in order to prevent interference. However, if there are a large number of communications channels to choose from in the shipped product, determining which communications channels to set in order to avoid interference can be a complicated process for an end user (specification at paragraph bridging pages 5-6).

Subsequently, in the present invention, prior to shipment of a communications system, the number of communications channels is limited to a number of user-selectable channels less than the total number of channels available during an inspection.

Hebeler

Hebeler discloses a channel selection method for a cordless telephone system. The base station and handset communicate with each other over a predetermined frequency band that is divided into a number of channels.

Hebeler teaches speeding up linkup time and achieving longer battery life of the handset by periodically scanning (but much less often than every 2 seconds) all channels to determine which channels are clear and selecting a subset of available clear channels to use for communication. In response to a wake-up signal, only those channels in the subset of channels are periodically scanned for an incoming call (see "Summary of the Invention" and Fig. 2A).

Differences over Hebeler

Claims 1, 4, 11

The Examiner alleges that the determination of which channels are free of interference, i.e., an array of available channels, teaches the present "inspection process." The Examiner alleges that the selection of a subset of channels for use in communication teaches the present "user-selectable communications channels."

However, unlike the present invention, Hebeler's determination of which channels are free of interference is made periodically because channels free of interference depends on the positional relationship, and other factors, between the handset and base station, as well as the environment in which the handset and the base station operate. In addition, Hebeler's channel selection method pertains to determination of channels free of interference after shipment, purchase of the telephone system by the user, and setting up the telephone system in the end users location.

To the contrary, in the present invention, the channels of which a determination of interference can be made are limited prior to shipment. Subsequently, the present invention is fundamentally different from the channel selection method of Hebeler.

At least for these reasons, Applicant submits that Hebeler fails to teach or suggest each and every claimed feature, including at least:

“...means for, during completion of an inspection process for the wireless communications system prior to shipment, selecting and setting user-selectable communications channels of the plurality of communications channels which a user is able to select and which are less in number than the number of communications channels,” as recited in claim 1, as amended.

“...the wireless communications system further comprising channel limitation means for selecting the usable communications channels from the settable communications channels prior to shipment,” as recited in claim 4, as amended.

“...selecting one or more usable communications channels from settable communications channels prior to shipment, in said transmitting device and/or receiving device,” as recited in claim 11, as amended.

Claim 8

Claim 8 is directed to excluding channels nearby the boundary of a usable frequency band. According to the present specification, in order to avoid potential interference from other types of devices, the communications channels can be successively determined starting from the channel having a frequency that is closest to the center of the frequency band, in order to avoid outer borders of the frequency band (specification at page 33).

Applicant submits that Hebeler’s determination of a subset of available communications channels is not disclosed as being for the purpose of avoiding interference with other types of devices, for example, other models from different manufacturers. Instead, Hebeler takes into consideration risk associated with models from the same manufacturer (see col. 4, line 65, to col. 5, line 1).

For at least these reasons, Applicant submits that Hebeler fails to disclose at least:

“...amongst channels assigned on a frequency-by-frequency basis, said channel limitation means excludes, from a choice of the usable communications channels, a channel nearby the boundary of a usable frequency band in the wireless communications system,” as recited in claim 8.

Claim 14

With respect to claim 14, the Examiner indicates that the handset of Hebeler constitutes the claimed “remote instruction means.” However, the disclosed remote control device 80 of the present invention is a device that remotely communicates with either the transmission unit 20 or the display unit 30 (see present Fig. 5).

In order to clarify the intended difference, claim 14 has been amended to recite that the claimed remote instruction means is remote from the wireless communications system.

For at least the above-stated reasons, Applicant requests that the rejection be reconsidered and withdrawn.

§103(a) Rejection

Claim 3 has been rejected under 35 U.S.C. § 103(a) as being unpatentable over Hebeler in view of U.S. Patent 4,233,576 (Pelchat). Applicant respectfully traverses this rejection.

Claim 3 is directed to successively selecting channels beginning with a channel having a frequency that is closest to the center of the usable frequency band.

The Examiner admits that Hebeler fails to teach this claimed feature, and instead relies on Pelchat at column 8, lines 30-33.

Pelchat at column 8 discloses that demodulators should preferably be tuned to signals close to the center of the band in order to produce the best overall cross talk cancellation for all channels concerned. The cross talk referred to in Pelchat is detection of cross-coupling signals from adjacent [multiple] polarization signals (col. 1, lines 38-44). In other words, Pelchat teaches tuning to multiple polarization signals close to the center of the band. Pelchat does not teach selection of channels for a set of user-selectable channels.

For at least this reason, Applicant submits that neither Hebelor nor Pelchat teach the feature recited in claim 3, of

“...said plurality of communications channels are each assigned a frequency, and
said means for selecting and setting successively selects said user-selectable
communications channels in order beginning from a channel having a frequency that is closest to
the center of a usable frequency band in said wireless communications system.”

Applicant requests that the rejection of claim 3 be reconsidered and withdrawn.

CONCLUSION

In view of the above amendment, applicant believes the pending application is in condition for allowance.

Should there be any outstanding matters that need to be resolved in the present application, the Examiner is respectfully requested to contact **Robert Downs** Reg. No. 48,222 at the telephone number of the undersigned below, to conduct an interview in an effort to expedite prosecution in connection with the present application.

If necessary, the Commissioner is hereby authorized in this, concurrent, and future replies to charge payment or credit any overpayment to Deposit Account No. 02-2448 for any additional fees required under 37.C.F.R. §§1.16 or 1.17; particularly, extension of time fees.

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Respectfully submitted,

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